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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

MOSLEHI, FARHOOD

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 03/26/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/820,756

Applicant(s)

JIN, BIN

Examiner

Farhood Moslehi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9,11,13-17,19 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9,11,13-17,19 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-21 are presented for examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 6-9, 11, 14-17, 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Beltran (5,630,074).
4. As per claim 1, Beltran shows a system for inter-thread communications, comprising: at least one thread from a first group of threads (e.g. col. 4, lines 63-67); a first buffer for buffering a request from the at least one thread from the first group (e.g. col. 5, line 16-20); at least one thread from a second group of threads for performing an operation according to the request retrieved from the first buffer (e.g. col. 5, lines 5-27); and a second buffer for buffering a response with respect to the request, the response being generated by the at least one thread from the second group, the response being retrieved by the at least one thread from the first group (e.g. col. 5, lines 5-27).
5. As per claim 6, it is rejected for the similar reasons as stated above.
6. As per claim 14, it is rejected for the similar reasons as stated above.
7. As per claim 2, Beltran shows a system wherein the first group of threads includes a user interface thread (e.g. cols. 3 and 4, lines 64-67 and 1-10 respectively).

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8. As per claim 3, Beltran shows a system wherein the second group of threads includes a worker thread (e.g. col. 4, lines 42-54). The KERNEL is running on a thread that is working continuously in the background, i.e. a worker thread.
9. As per claim 7, it is rejected for the reasons stated in the rejections for claims 2 and 3.
10. As per claim 15, it is rejected for the reasons stated above.
11. As per claim 8, Beltran discusses a method wherein retrieving the request by a thread from the second group according to a predetermined criterion includes retrieving according to whether the thread from the second group can perform the operation requested by the request (e.g. col. 5, lines 15-20).
12. As per claim 9, it is rejected for the similar reasons as stated above.
13. As per claim 16, it is rejected for the similar reasons as stated above.
14. As per claim 17, it is rejected for the similar reasons as stated above.
15. As per claim 11, Beltran discusses a method of receiving a response with respect to the request, generated by the thread from the second group, from a second buffer after the request being packed by the packing (e.g. col. 5, lines 50-61).
16. As per claim 19, it is rejected for the similar reasons as stated above.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 4,5 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Beltran in view of Kanai et al. (5,862,403) (hereinafter Kanai).

19. As per claim 4, Beltran does not specifically address the system wherein the first buffer comprises a plurality of buffer cells. Kanai discusses a system wherein a buffer comprises a plurality of buffer units (e.g. Abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Beltran and Kanai in order to have buffers comprising of cell buffers.

20. As per claim 5, it is rejected for the similar reason as stated above.

21. Claims 13 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beltran in view of Hirano (5,640,604).

22. As per claim 13 Beltran does not specifically show a method for generating a response with respect to the request after the processing; identifying an available buffer cell in a second buffer; and packing the response in the available buffer cell in the second buffer. Hirano shows a method for generating a response with respect to the request after the processing (e.g. col. 2, lines 55-60); identifying an available buffer cell in a second buffer (e.g. col. 2, lines 57-67); and packing the response in the available buffer cell in the second buffer (e.g. col. 2, lines 57-67).

23. As per claim 21, it is rejected for the similar reasons as stated above.

Response to Amendment

24. Applicant's arguments filed on 1/22/2004 have been fully considered but are not persuasive.

25. In the remarks, applicants argued in substance that (1) Beltran reference does not concern a system for inter-thread communications including at least one thread from a first group, a first buffer for buffering a request from the at least one threads from the first group, at least one thread from a second group of threads for performing an operation according to the request retrieved from the first buffer; and a second buffer for buffering a response with respect to the request, the response being generated by the at least one thread from the second group, the response being retrieved by the at least one thread from the first group.

26. As to point (1) Beltran discusses an application program may send one or more messages to the private buffer, each message identifying a program to be executed to, in effect create a master plan (e.g. col. 5, lines 17-22). The response is being generated by the holder program not through scheduling but through inter-thread communications. Many applications can reside in the master plan and communicate via the Holder program. Once the program gets executed, that is the response to the request.

27. In the remarks, applicants argued in substance that (2) Beltran reference does not concern a system for inter-thread communications including at least one thread from a first group, a first buffer for buffering a request from the at least one threads from the first group, at least one thread from a second group of threads for performing an operation according to the request retrieved from the first buffer; and a second buffer for

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buffering a response with respect to the request, the response being generated by the at least one thread from the second group, the response being retrieved by the at least one thread from the first group.

28. As to point (2) Beltran discusses a sequence of 32 programs which is only limited by the slot capacity of the private buffer can be executed. Beltran further indicates that the menu program can employ the public buffer of the Holder program to communicate with certain programs (e.g. col. 5, lines 50-58).

29. In the remarks, applicants argued in substance that (3) the Beltran reference is not found to disclose that a response is generated by the second program.

30. As to point (3). Beltran discusses that the Menu program may also employ the holder program to send messages to certain applications (e.g. col. 5, lines 55-61).

31. In the remarks, applicants argued in substance that (4) Kanai reference does not disclose, teach, or suggest a system for inter thread communications including at least one thread from a first group, a first buffer for buffering a request from the at least one threads from the first group, at least one thread from a second group of threads for performing an operation according to the request retrieved from the first buffer; and a second buffer for buffering a response with respect to the request, the response being generated by the at least one thread from the second group, the response being retrieved by the at least one thread from the first group.

32. As to point (4) Kanai reference teaches a buffer comprised of a plurality of buffer units. Kanai in combination with Beltran discusses an application program may send one or more messages to the private buffer, each message identifying a program to be

executed to, in effect create a master plan (e.g. col. 5, lines 17-22). The response is being generated by the holder program not through scheduling but through inter-thread communications. Many applications can reside in the master plan and communicate via the Holder program. Once the program gets executed, that is the response to the request.

33. In the remarks, applicants argued in substance that (5) Beltran reference does not concern a method of inter-thread communication including generating a request to a thread from a second group of threads, identifying an available buffer cell in a first buffer; packing the request in the available buffer cell; and receiving a response with respect to the request, generated by the thread from the second group from a second buffer after the request being packed by the packing.

34. As to point (5) Beltran discusses a method of receiving a response with respect to the request, generated by the thread from the second group, from a second buffer after the request being packed by the packing (e.g. col. 5, lines 50-61).

35. In the remarks, applicants argued in substance that (6) Beltran reference does not concern a method of inter-thread communications including receiving a request by a thread from a second group of threads sent by a thread from a first group of threads, processing the request, generating a response from the thread from the second group of threads with respect to the request; identifying an available buffer cell in a second buffer; and packing the response from the thread from the second group of threads, that was generated with respect to the request from the thread from the first group of threads, in the available buffer cell in the second buffer.

36. As to point (6) Beltran discusses a sequence of 32 programs that are only restricted by the slot capacity of the private buffer (e.g. col. 5, lines 54-58). Moreover each application has the ability to modify the public and private holder buffers to alter the course of actions following the application's control (e.g. col. 5, lines 60-64).

37. In the remarks, applicants argued in substance that (7) Hirano reference does not concern a method of inter-thread communications including receiving a request by a thread from a second group of threads sent by a thread from a first group of threads, processing the request, generating a response from the thread from the second group of threads with respect to the request; identifying an available buffer cell in a second buffer; and packing the response from the thread from the second group of threads, that was generated with respect to the request from the thread from the first group of threads, in the available buffer cell in the second buffer.

38. As to point (7) Hirano shows a method for generating a response with respect to the request after the processing (e.g. col. 2, lines 55-60); identifying an available buffer cell in a second buffer (e.g. col. 2, lines 57-67); and packing the response in the available buffer cell in the second buffer (e.g. col. 2, lines 57-67). Figure 7 further depicts the requests that are coming into different buffers from different programs and buffer responses.

Conclusion


39. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Farhood Moslehi whose telephone number is 703-305-8646. The examiner can normally be reached on M-F 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 703-305-8498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


ZARNI MAUNG
PRIMARY EXAMINER